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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,490	01/30/2004	Craig W. Roddy	HES 2003-IP-011430U1	9993

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EXAMINER	
FULLER, BRYAN A	
ART UNIT	**PAPER NUMBER**
3676	

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/769,490	RODDY ET AL.	
	Examiner	Art Unit	
	Bryan A. Fuller	3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-78* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18,22-37,41-57 and 61-75* is/are rejected.

7)☒ Claim(s) *19-21,38-40,58-60 and 76-78* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *1/30/04, 2/27/04,* 4/15/04, 6/1/04, 6/28/04 8/31/04, 10/21/04, 12/17/04, 4/4/05, 6/24/05 8/1/05
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 – 2, 4 – 9, 11 – 16, 18, 23, 25 – 28, 30 – 35, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Kepler et al (US 2003/0000425).

With respect to claims 1, 7, and 23: Kepler et al teaches in paragraph [0004] a method of cementing in a subterranean formation penetrated by a well bore comprising the steps of: placing a cement composition into the well bore, wherein the cement composition comprises a first cementious component having a first set time and a second cementious component comprising microencapsulated cement particles, wherein the second cementious component has a second set time that is delayed relative to the first set time of the first cementious component; allowing the first cementious component to at least partially set having at least one void; and allowing the second cementious component to set after a delay period so as to cure at least one void that forms during the setting of the first cementious component.

With respect to claim 2: Kepler et al teaches in paragraph [0004] a method wherein at least one void forms during the setting of the first cementious component.

With respect to claim 4: Kepler et al teaches in paragraphs [0004] and [0005] a method wherein second cementious component sets so as to cure at least one void that forms during the setting of the first cementious component.

With respect to claims 5 – 6, 8 – 9, 11 – 12, 25 – 28, and 30 - 31: Kepler et al teaches in paragraphs [0004] - [0009] a method wherein the second cementious component will not begin to hydrate until after the delay period, wherein the first cementious component comprises a Portland cement, a pozzolanic cement, a gypsum cement, a high alumina content cement, a silica cement, a soil cement, a calcium phosphate cement, a high alkalinity cement, or mixtures thereof, wherein the microencapsulated cement particles comprise a of cementing in a subterranean formation penetrated by a well bore Portland cement, a pozzolanic cement, a gypsum cement, a high alumina content cement, a silica cement, a soil cement, a calcium phosphate cement, a high alkalinity cement, or mixtures thereof. Additionally, the reference teaches a method wherein the microencapsulated cement particles comprise an expansive hydraulic cement. Finally, the reference teaches a method wherein the microencapsulated cement particles comprise conventional particle size cement, fine particle size cement, ultra-fine particle size cement, or mixtures thereof and wherein the microencapsulated cement particles are released into the cement composition after the delay period.

With respect to claims 13 – 16, 18, 32 – 35, and 37: Kepler et al teaches in paragraphs [0010] - [0013] a method wherein the encapsulation of the second cementious component involves at least one coating of a degradable material, wherein

the coating should not substantially degrade for at least six hours, wherein the degradable material prevents incorporation of the microencapsulated cement particles into the cement composition until after the delay period. The reference also teaches a method wherein the degradable material is a degradable polymeric material. Lastly, the reference teaches a method wherein the second cementious component is present in the cement composition in a first cementious component-to-second cementious component weight ratio in the range of from about 50:50 to about 90:10.

With respect to claim 22: Kepler et al teaches in paragraphs [0007] – [0010] a method wherein the cement composition further comprises fly ash, a silica compound, a fluid loss control additive, a surfactant, a dispersant, an accelerator, a retarder, salt, mica, fiber, a formation conditioning agent, bentonite, microspheres, a weighting material, or a defoamer.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3, 24, 41 – 48, 50 – 55, 57, 61 – 66, 68 – 73, and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kepler et al in view of Simpson et al (US 2002/0182574).

With respect to claims 3, 24, 41 – 48, 50 – 55, 57, 61 – 66, 68 – 73, and 75: Kepler et al teaches the features as previously claimed except for wherein an expandable tubular is placed into the well bore, expanding the expandable tubular, and at least one void is due to at least the use of the expandable tubular. Simpson et al teaches in paragraphs [0026] – [0027] a method wherein an expandable tubular is placed into the well bore, expanding the expandable tubular, and at least one void is due to at least the use of the expandable tubular. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kepler et al's invention by using an expandable tubular is placed into the well bore, expanding the expandable tubular, and at least one void is due to at least the use of the expandable tubular in view of Simpson et al. The motivation for this combination is that a fluid path may be left between the expanded tubular and the well bore in order to provide a flow path for fluids, including cement.

5. Claims 10 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kepler et al in view of Harris et al (5,086,850).

With respect to claims 10 and 29: Kepler et al teaches the features as previously claimed except for wherein the microencapsulated cement particles comprise an ultra-fine particle size cement having particle size diameters not greater than about 30 microns. Harris et al teaches in the abstract a method wherein the microencapsulated cement particles comprise an ultra-fine particle size cement having particle size diameters not greater than about 30 microns. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified

Kepler et al's invention by using cement particles with diameters not greater than about 30 microns in view of Harris et al. The motivation for this combination is that the use of such finely divided cement significantly reduces the waiting time required for the slurry to develop sufficient compressive strength.

6. Claims 17 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kepler et al in view of Moradi-Araghi et al (6,387,986).

With respect to claims 16 and 36: Kepler et al teaches the features as previously claimed except for the use of a specific degradable polymeric coating material. Moradi-Araghi et al teaches in column 3, lines 8 - 17 a method wherein a specific degradable polymeric coating material is used. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kepler et al's invention by using a specific degradable polymeric coating material in view of Moradi-Araghi et al. The motivation for this combination is that the use of the specific degradable polymeric coating material allows for the degradation to occur in numerous ways.

7. Claims 49 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kepler et al and Simpson et al as applied to claims 46 and 62 above, and further in view of Harris et al.

With respect to claims 49 and 67: Kepler et al and Simpson et al teach the features as previously claimed except for wherein the microencapsulated cement particles comprise an ultra-fine particle size cement having particle size diameters not greater than about 30 microns. Harris et al teaches in the abstract a method wherein

the microencapsulated cement particles comprise an ultra-fine particle size cement having particle size diameters not greater than about 30 microns. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the combination of Kepler et al's and Simpson et al's invention by using cement particles with diameters not greater than about 30 microns in view of Harris et al. The motivation for this combination is that the use of such finely divided cement significantly reduces the waiting time required for the slurry to develop sufficient compressive strength.

8. Claims 56 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kepler et al and Simpson et al as applied to claims 52 and 73 above, and further in view of Moradi-Araghi et al.

With respect to claims 56 and 74: Kepler et al and Simpson et al teach the features as previously claimed except for the use of a specific degradable polymeric coating material. Moradi-Araghi et al teaches in column 3, lines 8 - 17 a method wherein a specific degradable polymeric coating material is used. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the combination of Kepler et al's and Simpson et al's invention by using a specific degradable polymeric coating material in view of Moradi-Araghi et al. The motivation for this combination is that the use of the specific degradable polymeric coating material allows for the degradation to occur in numerous ways.

Allowable Subject Matter

9. Claims 19 – 21, 38 – 40, 58 – 60, and 76 – 78 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan A. Fuller whose telephone number is (571) 272-8119. The examiner can normally be reached on M - Th 7:30 - 5:00 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian E. Glessner can be reached on (571) 272-6843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian E. Glessner
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